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ABSTRACT

The Experimenter Prestige Effect (EPE) concerns the phenomenon where research products will be more readily and less critically accepted if produced by scholars and/or institutions of great eminence, even though the objective quality of ideas, methodology, and findings are equal. This study tested the hypothesis that students give higher ratings and find more strengths and fewer weaknesses in a study they think was conducted by a high-prestige source than one conducted by a low-prestige source. Thirty-nine Boston University graduate students read nearly identical forms of a research article. The only difference between the two forms was the title page. The high-prestige form gave the author as having a higher degree, professional rank, and more eminent school affiliation than the low-prestige form. Results of a comparison of student evaluations of the reports indicated that the apparent prestige of the author of the report did influence the reader. (JS)

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AN EXPERIMENTAL TEST OF THE EXPERIMENTER PRESTIGE EFFECT

by

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An Experimental Test of the Experimenter Prestige Effect

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Professors of educational research commonly face the problem of training their students to be critical consumers of research. They teach students what constitutes good and bad research methodology and discuss objective criteria for evaluating research.

Unfortunately, there is reason to suspect that there are other, less objective variables that influence the evaluation of research. Crane (1967), after reviewing factors relating to the acceptance of articles by journal referrees, concluded, "It appears that the evaluation of scientific articles is affected to some degree by non-scientific factors (p.200)". Indeed, social psychology tells us that sources with high credibility and prestige are more likely to change a person's attitude than are sources with low credibility and prestige. But while this relationship between prestige and influence may pervade every day life, it has no place in the scientific community, one of whose hallmarks is the dispassionate appraisal of the merits of an idea, finding, or product, regardless of its source.

For various reasons, some scientists and institutions have more prestige than others, and both lay people and academicians may accept their products more readily than the products of lower prestige sources. This phenomenom will be named the Experimenter Prestige Effect (EPE) and can be formally stated as follows: the objective quality of the ideas, methodology, and findings being equal, the greater the eminence of the scholars and/or institutions who produced them, the more readily and less critically will they be accepted.

Arguing that ideas and findings should be judged on their own merits and not on the prestige of their proponents is not to say that there is no relationship between the quality of the product and the eminence of its source. Clearly, there is. How else did the source become eminent? However, since high prestige sources occasionally may produce work of high quality, all work, regardless of its source, should be appraised equally critically.

As a professor of educational research, I wanted to investigate empirically how susceptible students in my and a colleague's course were to the EPE. Specifically my hypothesis was "Students give higher ratings and find more strengths and fewer

weaknesses in a study they think was conducted by a high prestige source than one conducted by a low prestige source."

METHOD

Subjects

Thirty-nine full-time or part-time graduate students, 34 female and five male, at the Boston University School of Education participated in this study. They comprised the entire enrollment of two sections of "Methods of Scientific Inquiry," a required course that emphasizes the critical evaluation of research studies. The author taught one section and a colleague[1] taught the other. Students were assigned randomly within classes to one of the two treatments.

Materials

Two nearly identical forms of a research article were typed and duplicated. The only difference between the two forms was the title page. One, the high prestige (HP) form, was headed by:

Daniel Brem, Ph.D.
J.M. Hutchinson Professor of Educational Psychology
Stanford University

The other, the low prestige (LP) form, was headed by:

Daniel Brem, Ed.M.
Instructor, Educational Psychology
Fresno State College

In short, the only difference in the two forms was the degree, professional rank, and school affiliation of the alleged author, Daniel Brem.[2]

Appended to the end of the report was an evaluation instrument which asked the students to (1) list the strengths and weaknesses of the study, and (2) "rate the overall quality of this experiment on a scale from 1 to 10, with 1 representing the lowest quality and 10 representing the highest quality." Thus, there were three dependent variables: the number of strengths, the number of weaknesses, and the rating.

Procedure

This study was conducted during the next to the last class of the semester. The instructor informed the class that on the final examination they would be asked, among

[1] I should like to thank Dr. William Diffley for assisting me with this study.

[2] I should like to thank Daniel Brem, my five year old nephew, for allowing me to use his name.

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other things, to evaluate a research report. Therefore, he thought it would be beneficial for them to "simulate game conditions" and evaluate, in class, a study he had brought. It should be mentioned that the students had been evaluating various research reports during the semester. The students were further informed to work individually, and that, when everyone had finished, the class would discuss the report.

The instructor then distributed the reports, whose two forms had been alternated in a pile before class. After all students had received one, the instructor said, "Each of you should have a study by Brem." The purpose of saying this was to non-reactively direct their attention to the heading of the report, which, of course, contained the high or low prestige information.

After approximately one-half hour, when everyone had finished, the instructor collected the papers and debriefed the students. No one reported having suspected anything other than the alleged purpose of the exercise--to practice for the final examination. Thus, it appeared that the attempt to make this experiment non-reactive was successful.

RESULTS

First, the results from the two different classes were compared. Since they were similar (the differences did not approach significance), the data were pooled. Next, a *t*-test was used to analyze the average rating of the two reports--probably the most important dependent variable of this study. The results, which are reported in Table 1, show that the HP group rated the report significantly higher ($t=2.7$; $p<.01$) than the LP group.[3]

Insert Table 1 about here

[3]Since it might be argued that the ratings were not interval data, a chi-square analysis was computed. Students were divided into Low (1-5) and High (6-10) rating groups. This analysis also yielded significant results ($x^2 = 9.29$, $p<.01$).

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Since the other dependent variables, the number of strengths and weaknesses, were ordinal data, median tests (Siegel, 1956) were used to analyze them. Table 2 shows that while both groups reported approximately the same number of strengths (x^2 = .24; p = n.s.), the LP group reported a significantly greater number of weaknesses (x^2 = 3.23; p .05) than did the HP group.

Insert Table 2 about here

DISCUSSION

The results show that these students were influenced by the apparent prestige of the author of the report. If one assumes that these results are fairly representative of other students in other educational research courses, then they pose a problem for professors of educational research. Discussions of research methodology and criteria for evaluating research are fine only if they are applied correctly and consistently. However, the results of this study indicate that students may not do so.

Indeed, these results indicate the dangers of adhering to Fox's (1958) recommendations:

> ..... sufficient information about the researcher, ... perhaps would be one of the best bases for judging the degree of confidence a piece of research warrants. For this reason, the research report should be accompanied by more information about the qualifications of the researcher than is the usual practice (p.285).

This author would recommend just the opposite; the less information about the author, the better.

Perhaps, therefore, professors of educational research should devote some time in their classes making students aware of the EPE. In particular, they should try to communicate the fact, perhaps with some examples, that even the work of well-known and respected researchers may contain flaws. Then, probably there will be fewer students like the one in a colleague's class, who, when asked to indicate weaknesses in a study replied, "It was done at Harvard. What could be wrong with it?"

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Table 1

Means, Standard Deviations, and t test of the Ratings in the High and Low Prestige Groups

	N	Mean	Standard Deviation
Low Prestige	19	4.3	1.97
High Prestige	20	6.1	2.17

$t = 2.7^{*}$

*p < .01 (one-tailed)

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Table 2

The Number of Strengths and Weaknesses Reported by the High and Low Prestige Groups

Group	Number of Strengths		Number of Weaknesses	
	0-3	4-10	1-4	5-12
Low Prestige	11	8	5	14
High Prestige	9	11	12	8
	$x^2 = .24$		$x^2 = 3.23^*$	

$^*p < .05$ (one-tailed)

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